

REMARKS

Claims 1, 3, and -8 are pending in this application. Claims 1, 3, and 5-8 stand rejected. By this Amendment, claims 1, 3, 5, and 7 have been amended to more clearly define the claimed invention and claims 2 and 4 have been cancelled. The amendments made to the claims do not alter the scope of these claims, nor have these amendments been made to define over the prior art. Rather, the amendments to the claims have been made to improve the form thereof. In light of the amendments and remarks set forth below, Applicant respectfully submits that each of the pending claims is in immediate condition for allowance.

Paragraph 1 of the Office Action rejects claims 1, 3, and 5 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,273,538 (“Mitsubishi”). Applicant respectfully traverses this rejection.

To anticipate a claim under 35 U.S.C. § 102, the cited reference must disclose every element of the claim, as arranged in the claim, and in sufficient detail to enable one skilled in the art to make and use the anticipated subject matter. See, PPG Industries, Inc. v. Guardian Industries Corp., 75 F.3d 1558, 1566 (Fed. Cir. 1996); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1349 (Fed. Cir. 1998). A reference that does not expressly disclose all of the elements of a claimed invention cannot anticipate unless all of the undisclosed elements are inherently present in the reference. See, Continental Can Co. USA v. Monsanto Co., 942 F.2d 1264, 1268 (Fed. Cir. 1991).

In Applicant's previous submissions, Applicant has pointed out that the feedback loop in the claims feeds back the terminal voltage applied to said piezoelectric actuators back to a second input of said power amplifier. The Examiner has stated that "the claim language fails to point out that there exists a resistance of the connection or cable between the power amplifier and the terminal voltage." Office Action pages 5-6. The claims now explicitly recite that there is an electrical connection having a first end coupled to the power amplifier and a second end coupled to the piezoelectric actuator and a feedback loop feeding a terminal voltage at the second end of the electrical connection applied to the piezoelectric actuator back to a second input of the power amplifier. Further, claims 1, 3, and 5 also explicitly recite the feedback loop having a capacitor and resistor connected and parallel to each other, the resistor feeding the terminal voltage at the second end of the electrical connection back to a second input of the power amplifier. The feedback loop originates at the piezoelectric actuator which is distant from the power amplifier. Because the feedback loop, the resistor and capacitor originate at the piezoelectric actuator, there is no need for any phase compensation means. As such, Applicant respectfully asserts that Mitsuhashi fails to disclose Applicant's explicitly recited invention and request a notice of allowance.

Paragraph 2 of the Office Action rejects claims 7 and 8 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,068,360 ("Hiwada"). Applicant respectfully traverses this rejection.

Among the limitations of claim 7 not found in Hiwada is “a negative feedback loop ... the negative feedback loop feeding back a terminal voltage applied to the piezoelectric actuator to the power amplifier.”

As shown in Figure 6 of Hiwada, the feedback signals D and E feedback the ground signal of a dummy piezoelectric terminal and the drive signal of a dummy switch 23. The actual terminal voltage of the piezoelectric actuator is not feedback in Hiwada. As such, Hiwada fails to disclose the explicitly recited feedback loop in Applicant's claim.

Claim 8 depends from, and contains all the limitations of claim 7. This dependent claim also recites additional limitations which, in combination with the limitations of claim 7, are neither disclosed nor suggested by Hiwada and is also believed to be directed towards the patentable subject matter. Thus, claim 8 should also be allowed.

Applicant has responded to all of the rejections and objections recited in the Office Action. Reconsideration and a Notice of Allowance for all of the pending claims are therefore respectfully requested.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

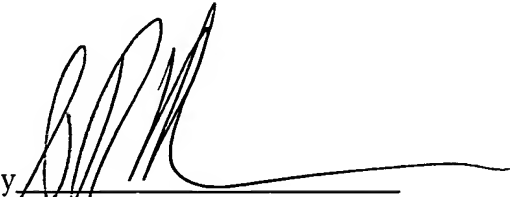
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If the Examiner believes an interview would be of assistance, the Examiner is welcome to contact the undersigned at the number listed below.

Respectfully submitted,

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By 

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